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DUAL
LADDER
SYSTEM

R.J. REYNOLDS
TOBACCO COMPANY
RESEARCH AND
DEVELOPMENT
DEPARTMENT



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The Research and Development Department of R.J. Reynolds Tobacco Company has implemented a Dual Ladder System in order to attract, challenge, and retain highly motivated personnel whose primary contributions result in technical achievements. R&D's Dual Ladder System establishes a route of advancement for such qualified personnel.

The management of RJRT Research and Development Department believes that attaining technical leadership is essential for achieving the Company's long range business goals. Past experience indicates that discoveries, developments and major improvements resulting in technical leadership flow largely from the minds and efforts of superior technical personnel. Technical leadership prevails when such qualifying personnel devote themselves to the practice of science and technology rather than to management.

R&D's Dual Ladder System was established to attract and retain people capable of superior technical achievements. This System provides the opportunity for greater rewards, support, recognition and influence. The intent of this system is for the rewards and rate of advancement to be equivalent to those in technical management.

The Dual Ladder incorporates the following positions:

- Senior Principal Chemist/Technologist/etc.
- Principal Chemist/Technologist/etc.
- Master Chemist/Technologist/etc.

TECHNICAL CRITERIA

Employees whose primary contributions are technical in nature - regardless of the functional area concerned - may be eligible for these positions. The essential qualifications for any nominee include 1) a record of superior technical achievements which have yielded results of significant value to RJR, 2) evidence of technical leadership, and 3) an expectation for continually achieving technical results.

Regarding the achievement of technical results, consideration is given to a wide range of achievements, including the following:

- in laboratory or with other R&D related work,
- by discovering or developing new technical knowledge or by applying specialized expertise,
- either in scientific or technological results, and
- in either an individual technical effort or technical leadership of team efforts.

Emphasis is placed on the quality and value of the technical achievements rather than on the quantity or nature of work being performed.

Because of their superior technical skills, nominees for these positions will have commonly worked on problems of high technical risk or unusual complexity.

It should be understood that such "results of value to RJR" may not always provide Company benefits. Even when results are positive, the financial benefit may not be clearly understood by those unfamiliar with the technical aspects of the work product. When making decisions to nominate and to recommend a Dual Ladder promotion, both management and the R&D Technical Review Committee (defined below) must address this issue carefully.

TECHNICAL REVIEW COMMITTEE

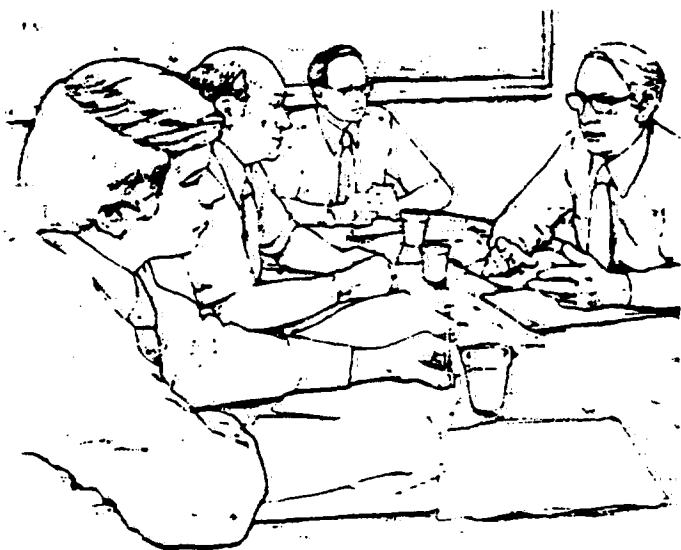
A Research and Development Technical Review Committee was established to ensure that qualified candidates who are promoted to the top technical positions meet the highest professional standards.

COMMITTEE SELECTION

Voting members include a technical representative from each major R&D Group, excluding Managers and Directors. Selections are made after consultation between the corresponding Group Director and the existing Committee. Final approval is made by the Vice President of R&D. The term of appointment for each representative is at least two



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years with staggered replacement.

Two nonvoting members act as Advisors to the Committee. R&D's Personnel Administrator acts as one advisor, and a Group Director - appointed by the Vice President of R&D - acts as the other advisor. Together, members select a Chairperson for the Committee.



STANDARD NOMINATION

Nominations for the top three technical positions are made predominantly by R&D management and are submitted in writing to either the Technical Review Committee Chairperson or the R&D Personnel Administrator. Sufficient, detailed documentation (details follow) must accompany the nominations. A new employee with demonstrated technical achievement and leadership may be nominated directly upon employment.

NOMINATION by WRITTEN PROPOSAL

In exceptional cases, an R&D staff member who feels an employee warrants nomination may submit a written proposal to the Committee. This proposal, showing justification for the nomination, must also contain the same documentation as that of a nomination by R&D management.

To consider a written proposal for nomination, Committee members will first determine its validity. If the proposal does indeed show merit for nomination, the nominee's Manager and/or Director will be contacted to process the nomination accordingly.



Proper documentation must be provided to the Technical Review Committee for a potential candidate to be considered for one of the top three technical positions in the Dual Ladder System. This documentation will provide sufficient evidence to

show a candidate's qualifications and strong background of technical performance and achievements.

All material included in a documentation must be pertinent and concise. It is not necessary for the Committee members to review a mass of technical papers to determine the nominee's qualifications and contributions.

When preparing the documentation for a nomination, the qualifications and contributions should be defined in common, understandable terminology. Even though nominations are evaluated by Committee members with technical backgrounds, the members may only be marginally familiar with the nominee's area of specialization.

The following criteria in support of a nomination must be included in the documentation:

1. A cover letter, signed by the nominator and preferably endorsed by the corresponding Group Director, including:
 - a. Name of nominee
 - b. Brief statement explaining reason for nomination
 2. The nominee's Curriculum Vitae, including:
 - a. Educational background
 - b. Professional work experiences, both prior to RJR and during RJR
 - c. Professional memberships
 - d. Professional registration
 3. A synopsis of the nominee's qualifications.
 4. A bibliography, listing any of the following if applicable:
 - a. Published papers (title, publication, issue, year)
 - b. Patents (number, classification)
 - c. RJR formal reports (title, number, date)
 - d. Major technical presentations (title, place, date)
 - e. Additional pertinent bibliographic information
- In addition, the following may be included if appropriate:
5. Examples of nominee's key contributions, either abstracts/summaries when lengthy or entire documents when brief.
 6. A few pertinent testimonials from individuals, either inside or outside RJR, who can appropriately judge the nominee's contributions.
 - a. Include person's name, occupation, place of employment
 - b. Indicate person's experience with the nominee
 - c. Cite the testimonial
 7. Copies or listings of any citations or awards presented to the nominee.

The supporting documentation for a candidate whose nomination for a top technical position has been approved by the Committee is filed with the R&D Personnel Administrator. When the same candidate is nominated again for a higher position, the supporting documentation should only speak to the nominee's work and accomplishments since reaching his/her current level. The R&D Personnel Administrator will furnish a copy of the candidate's preceding nomination documentation to the Committee Chairperson.

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QUALIFYING CRITERIA

In addition to listing the nominee's contributions, evidential qualifications must also be included in a documentation. The following describes the criteria of qualifications:

- Provide evidence showing that the nominee maintains a record of significant technical achievements with emphasis predominantly on its value to RJR. Keep in mind that the best employees may be assigned to the most difficult problems of both technical and commercial high risk.
- Give evidence showing that the nominee is recognized as being a technical leader in his/her area of expertise.
- Provide evidence indicating an expectation that a nominee continues to achieve technical results.

All evidence given in support of the nominee's qualifications will reflect the type of work performed by the nominee. Because of the differences in technical fields, the qualifications will be extensive and varied.

JOB DESCRIPTIONS

Nominees will fulfill the criteria for qualifications to different degrees simply because of the nature of specializations. Consequently, it is difficult to express in words an objective measure of these different degrees that are required in a qualification.

An attempt has been made, however, to differentiate the qualifications among the top three technical levels. At the end of these procedures three generic job descriptions are included to show the attempted differentiations. Ultimately, differentiation of the qualifications for these job descriptions resides in the judgment of the nominator and of the Technical Review Committee.

SAMPLE DOCUMENTATION

To assist the nominator in preparing documentations for candidates, the following lists hypothetical evidence for the three qualifying categories. Keep in mind that this is a representative sample and is intended solely as a suggestion.

This outline formation is part of the example and does not necessarily have to be followed as such.

I. Contributions to RJR

(Interpret contributions broadly and include both tangible results and results not easily connected to a specific dollar amount.)

A. Successful project accomplishments that have enhanced RJR's business goals.

(Examples):

1. New brands
2. Established brand maintenance and improvements
3. Technical design (cigarettes, equipment, processes)
4. Cost saving contributions (ingredients, processes, etc.)

5. New flavors and flavoring technology
6. New analytical methods
7. Improved understanding of the use of tobacco products
8. Effective translation of brands into manufacturing
9. Development or implementation of new or improved services which:
 - are more cost effective,
 - extend R&D capabilities
 - improve quality, quantity and clarity of results
 - reduce R&D project time and magnitude
10. Meaningful, scientific defense against external factors (e.g., smoking and health attacks and litigation, regulations)

B. Patents.

C. Significant publications in scientific literature or trade journals.

D. Intangible results:

1. Environmental protection
2. Product acceptability

E. Results that were technically successful but not commercially successful.

F. Technical results where the work was valuable for decision making or direction setting.

II. Evidence of Technical Leadership

A. Evidence that the nominee is effective in introducing 'leading edge technology' into general R&D use.

B. Recognition from co-workers as a consultant in the nominee's field of expertise, i.e., a "gatekeeper".

C. Nominee's ability to move technology from his/her own sphere elsewhere.

D. Active participation in appropriate technical societies, including presenting papers, holding office, participating in workshops, symposia, editorships, etc.

E. Established external professional contacts in field of specialty.

F. Demonstrated professional excellence:

1. Acceptance of results in scientific/technical literature or trade journals
2. Testimonials from RJR co-workers and/or from outside experts in the field
3. External recognition i.e., invitations to lecture, citations or awards, literature citations
4. Teaching or training skills

III. Expectation of Continuing Technical Achievement

A. Technical attributes:

1. Creative and original scientific thinking
2. High level of experimental skills
3. Unusual problem solving ability
4. Broad and current knowledge of the literature

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B. General evidence of initiative and productivity

VOING REVIEW

Once an employee is nominated for a Dual Ladder promotion, all members of the Technical Review Committee must be present to consider the nomination. The Committee voting members cast their decision on secret ballots which are then counted by the Committee advisors. (If a Committee member has been nominated, that member will not participate in any part of the nomination process.)

Nomination approval is reached with a unanimous vote or with only one dissenting vote. More than one dissenting vote disqualifies a nomination. The advisors do not announce the actual count; they only indicate whether the nomination was approved or denied.

An abstaining vote on the first ballot of a nomination will automatically require further discussion of the nomination. Abstaining votes on later ballots will automatically be considered a dissenting vote.

VOING RESUL

Additional information on the candidate may be requested before the Technical Review Committee feels a decision can be reached. The Committee Chairperson is responsible for obtaining any requested information from the nominator. In addition, Committee members may contact individuals, other than the nominee, who are in a position to furnish information concerning the nominee's qualifications and/or contributions.

Once a nomination is thoroughly evaluated and a decision is reached, the Committee Chairperson submits a written report to the nominator, indicating the Committee's recommendation. This report will also include justification for either nomination approvals or nomination denials. Clearly identified reasons for denial can provide valuable guidance to both the nominee and the nominator.

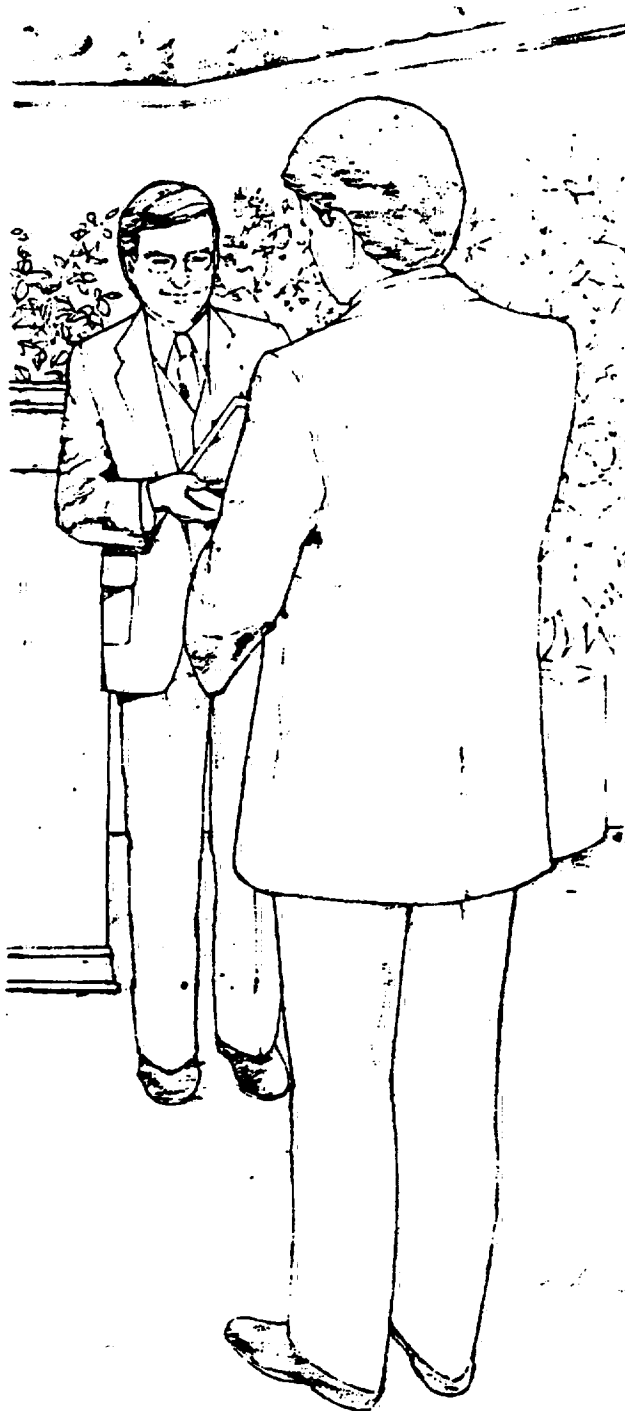
The Committee will act as expeditiously as possible on the nomination. Recommendations on the nomination should be reached within 60 days.

If the nomination is approved, the Committee Chairperson will present the recommendation to R&D's Vice President. Should the nomination be denied, the nominator may make an oral appeal to the Committee. Following this appeal and if dissension still remains, the nominator has the recourse of a final appeal to the Vice President of R&D.

PUBLICITY AND RECOGNITION

Appropriate publicity within and outside the Company will be provided for those employees promoted to the top three technical positions. Once the Technical Review Committee approves a nomination and the promotion is processed through the normal Company channels, a certificate recognizing

the candidate's accomplishment will be presented to the employee by the Vice President of R&D at the monthly staff meeting. An announcement of the promotion will be prepared and submitted to both RJRT and external news organizations for publication.



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LEVEL OF EXPERTISE

The incumbent is recognized as a national/international authority in one or more specialties of tobacco science, development, and/or related areas. He/she

1. Applies advanced scientific and engineering principles, concepts and technologies in developing original R&D programs.
2. Is responsible for maintenance of the highest level of competency in his/her area of expertise and to explore new ways of applying this knowledge to solve R&D problems.
3. Is responsible for maintaining an up-to-date awareness of emerging technologies and scientific results which may have potential impact on the Company. This includes maintenance of regular, personal contact with a diversity of external scientific and technological experts.

LEVEL OF R&D EFFORT

Functions

Technical Leader - Develops and directs the solution of complex research problems where little or no precedent exists. Innovation is required which may extend boundaries of existing knowledge. Provides research and development leadership at the R&D level in a specific technical field in which the individual is recognized as a national/international authority.

Planning - Establishes technical objectives of projects, directs, and may participate in R&D efforts.

Execution - Plans and executes the most complex projects in area of expertise and provides consultation and guidance throughout RJR R&D relative to same.

Communications - Monitors R&D project outcomes and the recommendations of lower-level technical staff. Evaluates the quality of technical results and reports to senior R&D management on the strengths and weaknesses of effort. Suggests changes necessary for improvement of technical results. Oversees the preparation, presentation and follow-up of major proposals. Contributes to and directs the preparation and presentation of research reports to RJR management and the professional community.

Advises R&D management, technical staff personnel and other functional company groups concerning the solution of problems related to his/her area of expertise.

RESPONSIBILITIES

Technical Content- Assures that the technical results at RJR, related to his/her area of specialty, are at the state-of-the-art and of the highest quality.

Schedules - Establishes appropriate project schedules and deadlines.

Budgets - Assists R&D management in the preparation of budgets for R&D projects in his/her area of responsibility.

Evaluations - Evaluates the performance of technical staff and technical support personnel.

EDUCATION & EXPERIENCE

Ph.D. with 15+ years of experience.

M.S./B.S. with 20+ years of experience.

Non-degreed with 25+ years of experience.

HUMAN RELATIONS SKILLS

Must be able to interface with and influence individuals in key positions both within and outside of RJR.

Relationships - Such relationships are critical to the successful execution of this position.

Internal - Regular and extensive consultative relationships with RJR R&D technical staff and management. This would also include liaison with other RJR subsidiary R&D departments. Maintains consultative relationship with corporate management.

External - Regular and extensive in-depth contacts with key governmental, academic, and professional organization representatives. Incumbent is expected to exert leadership influence in applicable professional organizations.

REPORTING, SUPERVISION RECEIVED, SUPERVISION GIVEN AND FREEDOM TO ACT

1. Reports to appropriate managerial staff member.
2. Works independently and in a consultative relationship.
3. Work is reviewed over a relatively long period of time for desired results.
4. Acquires support for and directs the research efforts of a number of high level researchers (normally 3-6).
5. Advises top management on research and development trends and their probable impact on RJR.



LEVEL OF EXPERTISE

The incumbent is known for sustained and outstanding R&D accomplishments and is recognized as being an authority in one or more R&D specialties within the RJR technical community. He/she

1. Applies advanced scientific and engineering theories, principles, concepts and technologies in developing original R&D programs.
2. Is responsible for continuing to maintain a high level of competency in his/her area of expertise and to explore new ways of applying this knowledge to solve R&D problems.
3. Is responsible for maintaining an up-to-date awareness and utilizing emerging technologies and scientific results which may have potential impact on the Company.

LEVEL OF R&D EFFORT

Functions

Technical Leader - Develops and executes R&D efforts to solve complex problems where little or no

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precedent exists and the use of ingenuity and creativity is required. Provides technical leadership within an R&D activity at the group level. Manages/directs the technical course of major R&D projects within his/her area of expertise.

Planning - Plans critical R&D projects requiring a high degree of creativity and inter- and intradepartmental organization. Establishes technical objectives within area of expertise and selects the technical staff required to accomplish these objectives.

Execution - Directs and participates in R&D studies to generate the research data and results required to meet the technical objectives. Directs and participates in the analysis and interpretation of research data and results.

Communications - Reviews R&D project outcomes and the recommendations of lower-level technical staff. Makes recommendations to R&D group management. Oversees the preparation, presentation and follow-up of major R&D proposals. Contributes to and directs the preparation and presentation of oral and written reports to R&D management.

Consults with R&D management, technical staff personnel and other company functional groups concerning the solution of problems related to his/her area of expertise.

RESPONSIBILITIES

Technical Content - Works closely with project technical staff to ensure that R&D studies produce relevant and high quality technical results.

Schedules - Establishes appropriate project schedules and deadlines.

Budgets - Assists R&D management in the preparation of budgets for R&D projects in his/her area of responsibility.

Evaluations - Either evaluates technical support personnel or supplies input to division management concerning their performance.

EDUCATION & EXPERIENCE

Ph.D. with 10+ years of experience.

M.S./B.S. with 15+ years of experience.

Non-degreed with 20+ years of experience.

HUMAN RELATIONS SKILLS

Must be able to interface with and influence individuals in key positions within R&D and other functional groups within the Company such as manufacturing, engineering, quality assurance, marketing and law.

RELATIONSHIPS

Internal - Maintains a consultative relationship with R&D technical staff and technical management. Participates in inter- and intradepartmental activities where his/her expertise can contribute to the success of R&D programs.

External - As appropriate, establishes and maintains contacts with various associations, universities and governmental agencies, and coordinates with technical and scientific consultants. Participates in applicable professional organization.

REPORTING, SUPERVISION RECEIVED, SUPERVISION GIVEN AND FREEDOM TO ACT

1. Reports to appropriate managerial staff member.
2. Works independently with general management supervision.
3. Work is reviewed over a relatively long period of time for desired results.
4. Is instrumental in acquiring support for and directing the R&D effort of a number of staff personnel (normally 3-6).
5. Advises R&D management concerning research trends and developments in his/her area of expertise.

JOE DESCRIPTION MASTER

LEVEL OF EXPERTISE

The incumbent is known for outstanding R&D accomplishments and is recognized as being highly qualified in an R&D specialty within the RJR technical community. He/she

1. Applies advanced scientific and engineering theories, concepts, and technologies in area of specialty.
2. Is responsible for continuing to maintain a high level of competency in his/her area of expertise.
3. Is responsible for maintaining an up-to-date awareness of and utilizing emerging technologies and scientific results in his/her area of



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specialization which may have potential impact on the Company.

LEVEL OF R&D EFFORT

Functions

Technical Leader - Develops solutions to complex R&D problems where little or no precedent exists and the use of ingenuity and creativity may be required. May develop and/or lead R&D projects at the division level in his/her area of specialization. May direct R&D efforts on a large-scale project or several small projects.

Planning - Plans projects, determines technical objectives, makes recommendations for the selection of project staff and organizes the R&D effort to meet technical objectives.

Execution - Actively participates in the generation of research data and results. Analyzes and interprets research data and results.

Communications - Reports R&D outcomes and makes recommendations to division management. Contributes to and directs the preparation of oral and written reports to R&D management.

RESPONSIBILITIES

Technical Content - Is responsible for the quality of technical results.

Schedule - Is responsible for maintaining project schedules and meeting appropriate deadlines.

Budgets - Assists division management in the preparation of budgets for R&D projects in his/her area of responsibility.

Evaluations - Either evaluates technical support personnel or supplies input to division management concerning their performance.

EDUCATION & EXPERIENCE

Ph.D. with 6+ years of experience.

M.S. with 9+ years of experience.

B.S. with 12+ years of experience.

Non-degreed with 15+ years of experience.

HUMAN RELATIONS SKILLS

Establishes effective relationships with peers, support groups and other researchers.

RELATIONSHIPS

Internal - Participates in frequent inter- and intra-departmental collaborations. Maintains regular contacts with technical support groups plus regular contacts with company functional groups such as manufacturing, engineering, quality assurance, marketing and law.

External - As appropriate, forms contacts with various associations, universities and governmental agencies, and coordinates with technical and scientific consultants.

REPORTING, SUPERVISION RECEIVED, SUPERVISION GIVEN AND FREEDOM TO ACT

1. Reports to appropriate managerial staff member.
2. Works under management direction. Normally determines technical objectives for the R&D projects in his/her area of responsibility.
3. May direct the efforts of R&D junior professional

and support personnel. Assists R&D management in training and guiding less experienced R&D technical staff. Assists R&D management in technical evaluation of divisional staff.

4. Work is reviewed to determine if desired overall results and objectives have been achieved.



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